



U.S. Department of Energy
Office of River Protection

P.O. Box 450
Richland, Washington 99352

01-OSR-0509

Mr. Ron F. Naventi, Project Manager
Bechtel National, Inc.
3000 George Washington Way
Richland, Washington 99352

Dear Mr. Naventi:

CONTRACT NO. DE-AC27-01RV14136 – RIVER PROTECTION PROJECT – WASTE
TREATMENT PLANT (RPP-WTP) LIMITED CONSTRUCTION AUTHORIZATION
AGREEMENT, REVISION 1

- Reference:
1. BNI letter from A. R. Veirup, BNI, to M. K. Barrett, ORP, "Transmittal for Approval – Authorization Basis Change Notice 24590-WTP-ABCN-ESH-01-016, Revision 0, Pretreatment Reconfiguration," CCN 024496, dated November 30, 2001.
 2. ORP letter from R. C. Barr to R. F. Naventi, BNI, "OSR Approval of ABCN-24590-WTP-ABCN-ESH-01-016, Pretreatment Reconfiguration," 01-OSR-0496, dated December 19, 2001.

The signed Limited Construction Authorization Agreement, Rev. 1, between the U.S. Department of Energy, Office of River Protection (ORP) and Bechtel National, Inc. is attached for your records. This revision of the Limited Construction Authorization Agreement incorporates the requested change (Reference 1) of excavation drawing references to concrete general arrangement drawings. These changes eliminate the Low-Activity Waste Pretreatment Facility and reflect the latest primary processing facility foundation designs, and were approved by the ORP in Reference 2.

If you have any questions, you may contact me or Rob Gilbert of my staff, (509) 376-2310.

Sincerely,

Robert C. Barr
Safety Regulation Official
Office of Safety Regulation

OSR:RAG

Attachment

Limited Construction Authorization Agreement, Revision 0
Between
The U.S. Department of Energy, Office of River Protection
and
Bechtel National, Inc.

Limited Construction Authorization Agreement, Revision 1

Between

The U.S. Department of Energy, Office of River Protection

and

Bechtel National, Inc.

1. Purpose

This Limited Construction Authorization Agreement (hereafter referred to as the "Agreement") identifies the scope of the limited construction work authorized by the U.S. Department of Energy, Office of River Protection (ORP) and the terms and conditions associated with ensuring the achievement of adequate nuclear, radiological, and process safety.

2. Scope of the Authorization Agreement

This Agreement applies to the performance of specified limited construction activities associated with the River Protection Project Waste Treatment Plant (RPP-WTP) performed by Bechtel National, Inc. (BNI) and its subcontractors. The RPP-WTP is a large radiochemical processing facility located in the 200 East Area of the Hanford site that will treat and immobilize Hanford tank wastes. RPP-WTP limited construction activities include RPP-WTP site preparation, excavation, placing mud mats, and providing temporary and permanent facilities that will be needed for construction of the primary RPP-WTP process buildings. The specific activities authorized under this Agreement are:

- Construction activities detailed in the Limited Construction Authorization Request (LCAR), Table 1, "WTP Project Limited Construction Activities"
- The radiological surveys, potential radiological contamination control and remediation activities, and the use of industrial radioactive sources as described in the LCAR, Section 4.0, "Radiological Safety."

3. DOE Basis for Approval

The ORP Office of Safety Regulation (OSR) has performed safety reviews and conducted oversight of RPP-WTP contractors in the areas of radiological, nuclear, and process safety. These safety reviews and oversight activities have been conducted in accordance with the specific regulatory actions established in the RPP-WTP contracts. Based on these reviews and oversight activities, the ORP has concluded that limited construction activities, if properly performed, will achieve adequate safety. The following specific regulatory actions, safety reviews associated with amendments to these documents, and oversight activities have led to this conclusion:

- a. The Standards Approval regulatory action, which included the following reviews and approvals:
 - Review and approval of the Safety Requirements Document (SRD) and the Hazards Analysis Report (HAR) as documented in RL/REG-98-01, *DOE Regulatory Unit Evaluation Report of the BNFL Inc. Safety Requirements Document* and RL/REG-98-20, *DOE Regulatory Unit Evaluation of BNFL Inc. Safety Requirements Document*.

- Review and approval of the Integrated Safety Management Plan (ISMP) as documented in RL/REG-98-19, *DOE Regulatory Unit Evaluation of BNFL Inc. Integrated Safety Management Plan*.
- b. The Initial Safety Evaluation regulatory action, which included review and approval of the Initial Safety Analysis Report (ISAR) as documented in RL/REG-98-09, *DOE Regulatory Unit Initial Safety Evaluation Report of the BNFL Inc. Initial Safety Assessment*.
- c. The Limited Construction Authorization regulatory action, which included the following reviews and approvals:
- Review and approval of the Limited Construction Authorization Request (LCAR) as documented in ORP/OSR-2001-11, *Safety Evaluation Report of Contractor's Limited Construction Authorization Request (LCAR SER)*.

As part of the LCAR review process, the ORP considered the safety basis documentation requirements of 10 CFR 830. 10 CFR 830.206 establishes that limited construction activities may be authorized without approval of a preliminary documented safety analysis if DOE determines that the activities are not detrimental to public health and safety and are in the best interest of DOE.

Based on the safety reviews and oversight activities described in this section, the ORP has determined that authorized limited construction activities are not detrimental to public health and safety.

As described in the LCAR SER, the OSR determined from a review of this information that performing limited construction activities will increase the probability of initiating WTP hot commissioning within DOE WTP schedule commitments. In addition, the ORP Office of Assistant Manager for Project Delivery determined that there was potential cost benefits associated with commencing limited construction activities. On this basis, the ORP concluded that authorizing limited construction activities is in the best interest of DOE.

- Review and approval of the Radiation Protection Program for Design and Construction (RPP) as documented in ORP/OSR-2001-05, *Evaluation of the BNI Radiation Protection Plan for Design and Construction, Revision 5A*.
 - Review and approval of the Quality Assurance Manual (QAM) as documented in ORP/OSR-2001-10, *Office of Safety Regulation Evaluation of the River Protection Project Waste Treatment Plant Contractor's Quality Assurance Manual*.
- d. The Oversight Process regulatory action, which included the following oversight activities.
- OSR inspections of WTP contractor activities during the WTP design phase. These inspection activities are established in RL/REG-98-05, *Inspection Program Description for the Regulatory Oversight of the RPP-WTP Contractor (IPD)*. Safety issues raised in these inspections are resolved in accordance with the Corrective Action Program established in RL/REG-98-06, *Corrective Action Program Description*. The ORP has determined that there are no outstanding safety issues associated with the inspection program that would have an adverse safety impact on limited construction activities.

- The OSR conducted a Limited Construction Authorization Readiness Inspection in accordance with the IPD. The OSR determined that necessary BNI programs and procedures are in place, and that BNI is ready to commence LCAR Table 1-2 "Phase A" activities. The inspection is documented in OSR Inspection Report IR-01-004, *Limited Construction Authorization Readiness Inspection*. Inspection Report IR-01-004 identifies that BNI was not ready to commence LCAR Table 1-2 "Phase B" activities. The conditions that must be satisfied prior to commencing LCAR Table 1-2 "Phase B" activities are established in Section 5.f below.

4. Authorization Basis

The RPP-WTP authorization basis is the composite of information provided by RPP-WTP contractors in response to radiological, nuclear, and process safety requirements. The implementation of these requirements forms the basis upon which the DOE grants permission to perform regulated activities. The following are the specific documents (including material incorporated by reference) provided by BNI that are the basis for DOE's decision to authorize limited construction activities.

- a. Safety Requirements Document (SRD), Volume II, BNFL-5193-SRD-01-02, Revision 4b, as amended.
- b. Integrated Safety Management Plan (ISMP), BNFL-5193-ISP-01, Revision 6, as amended.
- c. Hazards Analysis Report (HAR), BNFL-5193-HAR-01, Revision 2, as amended. As described in Section 3.3.1.8 of the ISMP, only those portions of the HAR that constitute bounding or significant hazards are considered to be part of the authorization basis.
- d. Portions of the Initial Safety Analysis Report (ISAR), BNFL-5193-ISAR-01, Revision 2, as amended. As described in Section 3.3.1.3 of the ISMP, those portions of the ISAR that relate to fundamental aspects of design are part of the authorization basis. Also, those portions of the ISAR that are incorporated by reference in the SRD and ISMP are part of the authorization basis.
- e. Limited Construction Authorization Request (LCAR), 24590-WTP-LCAR-ESH-01-001, Revision 1, as amended.
- f. The following drawings:
 - [24590-LAW-DB-S13T-00003, LAW Vitrification Building Main Building Concrete Key Plan At El \(-\)21'-0"](#)
 - [24590-HLW-DB-S13T-00001, HLW Vitrification Building Concrete General Arrangement Plan At El.\(-\)21'-0"](#)
 - [24590-PTF-D0-S13T-00001, Pretreatment Facility Concrete Foundation Outline General Arrangement Plan for Excavation](#)
- g. Quality Assurance Manual (QAM), 24590-WTP-QAM-QA-01-001, Revision 0, as amended.
- h. Radiation Protection Program for Design and Construction (RPP), BNFL-TWP-SER-003, Revision 8, as amended.

5. Terms and Conditions

- a. Limited construction activities shall be performed in accordance with the RPP-WTP authorization basis.
- b. BNI shall maintain the authorization basis current with respect to changes made to the facility design and administrative controls, and in light of significant new safety information.
 - (1) BNI-initiated changes to the authorization basis, with the exception of changes to the drawings identified in 4.f above, shall be performed in accordance with RL/REG-97-13, *Regulatory Unit Position on Contractor-Initiated Changes to the Authorization Basis*.
 - (2) BNI may make changes to the drawings identified in 4.f above without prior DOE approval if:
 - Changes are consistent with the balance of the authorization basis, and
 - BNI has determined that there is no radiological, nuclear, and process safety issue associated with the change, and
 - The changes do not substantially alter the location of any of the primary WTP process facilities or the dimensions of the excavations associated with these facilities.

NOTE: Proposed changes to the drawings identified in 4.f that do not meet the above criteria shall be submitted to ORP for approval prior to implementation. Replacement of drawings identified in 4.f above are authorized subject to the approval criteria described in 5.b.(2) above.
- c. BNI shall incorporate and implement new or revised radiological, nuclear, and process safety requirements as directed by the ORP in accordance with RL/REG-98-14, *Office of Safety Regulation Position on New Safety Information and Back-fits*.
- d. BNI shall identify and correct conditions that do not conform to the RPP-WTP authorization basis in accordance with the ISMP, which describes the BNI's implementation of RL/REG-98-06, *Corrective Action Program Description*.
- e. BNI shall report occurrences that involve nuclear, radiological, or process safety to the ORP in accordance with the Construction Occurrence Reporting Plan for Limited Construction (LCAR, Appendix B, Revision 0, as amended).
- f. Prior to commencing LCAR Table 1-2 "Phase B" activities the following shall be completed:
 - (1) BNI shall complete implementation of the programs and procedures that are necessary to ensure LCAR Table 1-2 "Phase B" activities are accomplished in accordance with the authorization basis.
 - (2) BNI shall inform ORP that it is ready to commence LCAR Table 1-2 "Phase B" activities.

- (3) The ORP will perform sufficient inspections to verify that BNI is ready to commence LCAR Table 1-2 "Phase B" activities. Upon successful completion of this verification and prior to commencement of Phase B activities, the ORP will concur in writing with BNI's readiness determination.

6. Contractor Qualification

Limited construction activities will be performed under DOE Contract DE-AC27-01RV14136 for the design, construction, and commissioning of the RPP-WTP. Evaluation of contractor qualifications was a key factor in the solicitation process associated with awarding the Contract. During the solicitation process, the DOE Source Evaluation Board determined that BNI was qualified to perform the work specified in the Contract. In addition, during the LCAR review described in Section 3.c above, the ORP reviewed information provided in the LCAR specifically related to BNI's qualifications to perform important-to-safety activities and determined that the information adequately demonstrated BNI's qualifications to safely perform the activities authorized in this Agreement. On this basis, the ORP has determined that BNI is qualified to perform important-to-safety RPP-WTP limited construction activities.

7. Agreement

This Agreement is subject to the conditions specified herein, and ORP and BNI agree to these conditions. This Agreement becomes effective upon the date of signature by both parties and shall expire upon termination of Contract DE-AC27-01RV14136, completion of authorized limited construction activities, or when this Agreement is superseded by a subsequent authorization agreement. This Agreement does not alter any terms or conditions specified in Contract DE-AC27-01RV14136.

_____/_____
Signature Date

H. L Boston, Manager
Office of River Protection
U.S. Department of Energy

_____/_____
Signature Date

R. F. Naventi
Project Manager
Bechtel National, Inc.